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UNITED STATES DEPARTMENT OF AGRICULTURE

BULLETIN No. 483

Contribution from the Bureau of Crop Estimates
LEON M. ESTABROOK, Chief

Washington, D. C.



February 14, 1917

STATISTICS OF FRUITS IN PRINCIPAL COUNTRIES

PRODUCTION, EXPORTS, AND IMPORTS FOR THE
UNITED STATES AND FOREIGN COUNTRIES

By

H. D. RUDDIMAN, Division of Crop Records

CONTENTS

	Page		Page
Introduction	1	Europe—Continued.	
North America	2	Germany	22
United States	2	Italy	24
Canada	8	Russia	27
Central America	9	Southeastern Europe	28
Mexico	10	Spain and Portugal	32
West Indies	10	United Kingdom	35
South America	12	Asia	37
Argentina	12	Japan	37
Brazil	13	Persia	38
Chile	13	Africa	38
Paraguay	14	Algeria	38
Uruguay	14	British South Africa	39
Europe	16	Tunis	39
Austria-Hungary	16	Oceania	39
Belgium and Netherlands	17	Australia	39
Denmark, Norway, and Sweden	19	New Zealand	40
France	20	Hawaii	40



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	Page.		Page.
Introduction.....	1	Europe—Continued.	
North America.....	2	Germany.....	22
United States.....	2	Italy.....	24
Canada.....	8	Russia.....	27
Central America.....	9	Southeastern Europe.....	28
Mexico.....	10	Spain and Portugal.....	32
West Indies.....	10	United Kingdom.....	35
South America.....	12	Asia.....	37
Argentina.....	12	Japan.....	37
Brazil.....	13	Persia.....	38
Chile.....	13	Africa.....	38
Paraguay.....	14	Algeria.....	38
Uruguay.....	14	British South Africa.....	39
Europe.....	16	Tunis.....	39
Austria-Hungary.....	16	Oceania.....	39
Belgium and Netherlands.....	17	Australia.....	39
Denmark, Norway, and Sweden.....	19	New Zealand.....	40
France.....	20	Hawaii.....	40

INTRODUCTION.

The purpose of this bulletin is to present in a concise form statistics of fruit and fruit products, including production and trade for the principal producing, exporting, and consuming countries. The figures used have been taken from official sources, usually from publications of the countries treated. Data concerning commerce in fruits are as a rule fairly complete, but those relating to production if not entirely lacking are in many instances either fragmentary or limited to census years.

NOTE.—This bulletin contains a brief survey of the fruit industry in principal countries. While intended for general distribution to the public it is of especial interest to fruit growers and dealers.

NORTH AMERICA.

UNITED STATES.

PRODUCTION OF FRUITS.

The total value of all fruits produced in the United States in 1909, according to the Thirteenth Census, was \$218,000,000, which was equivalent to about one-third the value of the wheat crop of that year. Deciduous tree fruits furnished 65 per cent of the total fruit value, small fruits 14 per cent, citrus fruits 10 per cent, grapes 10 per cent, and tropical and subtropical, other than citrus, 1 per cent.

Fifty-nine per cent of the value of deciduous tree fruits was derived from apples, 60 per cent of the small fruits from strawberries, 77 per cent of the citrus fruits from oranges, and 97 per cent of the tropical and subtropical fruits, other than citrus fruits, from figs, pineapples, and olives.

The production of deciduous tree fruits, small fruits, and grapes was widely distributed. In the case of citrus fruits and other tropical and subtropical fruits, however, the production was confined chiefly to California and Florida.

TABLE 1.—*Fruit crops of the United States, 1909.*

(Thirteenth Census.)

Crop.	Trees of bearing age, 1910.	Production, 1909.	Value, 1909.
Deciduous tree fruits:	<i>Number.</i>	<i>Bushels.</i>	<i>Dollars.</i>
Apples.....	151,322,840	146,122,318	83,231,492
Peaches and nectarines.....	94,506,657	35,470,276	28,781,078
Pears.....	15,171,524	8,840,733	7,910,600
Plums and prunes.....	23,445,009	15,480,170	10,299,495
Cherries.....	11,822,044	4,126,099	7,231,160
Apricots.....	3,669,714	4,150,263	2,884,119
Quinces.....	1,154,399	428,672	517,243
All other.....	25,090	65,164	12,160
Total deciduous tree fruits.....	301,117,277	214,683,695	140,867,347
Tropical and subtropical fruits:			
Citrus—		<i>Boxes.</i>	
Oranges.....	9,737,927	19,487,481	17,566,464
Lemons.....	956,920	2,770,313	2,993,738
Pomeloes (grape fruit).....	710,040	1,189,250	2,060,610
Limes.....	45,387	11,313	12,478
Tangerines.....	27,271	38,752	68,770
Mandarins.....	7,227	3,896	6,553
Kumquats.....	1,988	1,112	2,826
Citrons.....	8	6	9
Total citrus.....	11,486,768	23,502,128	22,711,448
Noncitrus fruits—		<i>Pounds.</i>	
Figs.....	821,640	35,060,395	803,810
Pineapples.....	¹ 36,191,389	² 778,651	734,090
Olives.....	846,175	16,405,493	404,574
Bananas.....	23,114	³ 10,060	5,661
Guavas.....	15,347	354,062	11,628
Avocados (aguacates).....	12,054	2,4920	10,100
Mangoes.....	4,904	5,278	5,739
Persimmons (Japanese).....	16,491	⁵ 6,723	9,087
Loquats.....	3,791	44,541	5,880
Pomegranates.....	8,933	152,825	4,203
Dates.....	4,551	9,947	533
Total noncitrus.....			1,995,305
Grapes.....	⁶ 223,701,522	⁷ 2,571,065,205	22,027,961

¹ Number of plants.² Crates.³ Bunches.⁴ Boxes.⁵ Bushels.⁶ Vines of bearing age.⁷ Pounds.

TABLE 1.—*Fruit crops of the United States, 1909—Continued.*

Crop.	Trees of bearing age, 1910.	Production, 1909.	Value, 1909.
Small fruits:	<i>Acreage.</i>	<i>Quarts.</i>	
Strawberries.....	143,045	255,702,035	\$17,913,926
Blackberries and dewberries.....	49,004	55,343,570	3,909,831
Raspberries and loganberries.....	48,668	60,918,196	5,132,277
Cranberries.....	18,431	38,243,060	1,755,613
Currants.....	7,862	10,448,532	790,431
Gooseberries.....	4,765	5,282,843	417,034
Other berries.....	685	627,627	55,369
Total small fruits.....	272,460	426,565,863	29,974,481
Total all fruits.....			217,576,542

The principal fruits of the various classes were the following, the figures for 1909 being taken from the Thirteenth Census of the United States:

DECIDUOUS TREE FRUITS.

Apples.—From the viewpoint of quantity produced, value of product, and wide distribution of cultivation, the apple is the most important fruit grown in the United States. The number of farms reporting apple trees of bearing age in 1910 was 2,980,000, practically one-half of all the farms in the United States at that time. The total production of apples in 1909 was 146,000,000 bushels, equivalent in round numbers to 49,000,000 barrels of 3 bushels each. The leading States were New York with 8,470,000 barrels, Michigan 4,111,000 barrels, Pennsylvania 3,349,000 barrels, and Missouri 3,323,000 barrels. In 1915 and 1916 the apple crop of the United States, according to reports of the Bureau of Crop Estimates, amounted to 77,000,000 and 68,000,000 barrels, respectively. It should be borne in mind that the foregoing figures refer to agricultural production and not to a so-called commercial crop.

From recent investigations made by the Bureau of Crop Estimates it is estimated that about 18 per cent of the 1915 apple crop consisted of "summer" apples, 25 per cent "fall," and 57 per cent "winter" apples. The three leading varieties were the Ben Davis, which comprised 14.5 per cent of the total crop; the Baldwin, 10.9 per cent; and the Winesap, 7.3 per cent. It is estimated that in the disposal of the crop nearly 56 per cent was sold from farm or orchard (excluding that used for cider), 10 per cent was used to make cider, 19 per cent was consumed on farms for human purposes other than as cider, and the remaining 15 per cent was wasted or eaten by live stock.

Peaches and nectarines.—The production in 1909 was 35,500,000 bushels. California ranked first in the production of these fruits with 9,250,000 bushels and Georgia second with 2,500,000 bushels.

No other State had a production so large as 2,000,000 bushels. For the years 1915 and 1916 the Bureau of Crop Estimates reports the total production of peaches as 63,000,000 bushels and 37,000,000 bushels, respectively.

Plums and prunes.—The production of plums and prunes in 1909 was 15,500,000 bushels. California was the leading State with 9,318,000 bushels, Oregon second with 1,748,000 bushels, and Washington third with 1,032,000 bushels.

Pears.—The production of pears in 1909 amounted to 8,841,000 bushels. The chief producing States were California with 1,928,000 bushels and New York with 1,343,000 bushels. In 1915 the pear crop of the United States, according to reports of the Bureau of Crop Estimates, was 11,216,000 bushels, and in 1916, 10,377,000 bushels.

Cherries.—The production of cherries in 1909 was 4,126,000 bushels. California ranked first with 501,000 bushels and Pennsylvania second with 475,000 bushels.

TROPICAL AND SUBTROPICAL FRUITS.

Citrus.—The principal citrus fruits grown in the United States are oranges, lemons, and grapefruit. The cultivation of these fruits is virtually confined to California and Florida. In 1909 there were produced in the United States 19,487,000 boxes of oranges, 2,770,000 boxes of lemons, and 1,189,000 boxes of grapefruit. Practically all of the lemons and 74 per cent of the oranges were grown in California, while virtually all of the grapefruit and 25 per cent of the oranges were grown in Florida.

During the season 1913-14 there were shipped out of California, according to figures of the California State Board of Agriculture 45,306 carloads of oranges and 3,032 carloads of lemons, as against 39,744 carloads of oranges and 7,068 carloads of lemons in 1914-15. A California carload is estimated to average about 396 boxes of oranges or 336 boxes of lemons.

The production of oranges and grapefruit in Florida during the season 1913-14, as reported by the Commissioner of Agriculture of that State, amounted to 6,666,000 boxes and 2,211,000 boxes, respectively.

Noncitrus.—The principal noncitrus fruits grown were figs, pineapples, and olives. In 1909 there were produced in the United States 35,060,000 pounds of figs, 779,000 crates of pineapples, and 16,405,000 pounds of olives. Two-thirds of the figs and practically all of the olives were grown in California, while Florida reported virtually all of the pineapples.

With regard to the disposal of the olive crop of 1915, the California Olive Association estimates the production of olive oil in California at 1,000,000 gallons and of packed olives at 300,000 cases of 6 gallons to the case.

Grapes.—The production of grapes in 1909 was 2,571,000,000 pounds, valued at \$22,628,000. While California produced 77 per cent of the total crop, the value of the grapes of that State amounted to only 49.2 per cent of the total value. New York was second in production with 253,000,000 pounds and Michigan third with 121,000,000 pounds.

According to a report of the California State Board of Viticultural Commissioners, dated March 15, 1914, the area planted to grapes in California amounts to 330,000 acres. Of this area, it is estimated that about 170,000 acres are planted to wine grapes, 110,000 acres to raisin grapes, and 50,000 acres to table grapes. The total production of fresh grapes in 1914 from the 330,000 acres is reported as 1,848,380,000 pounds, or 924,190 tons.¹ In the disposal of the California vintage of 1914 it is estimated that about 475,190 tons of fresh grapes, valued at \$5,250,000, were delivered to wineries, 324,000 tons were dried into raisins, and 125,000 tons were sold as table grapes.

SMALL FRUITS.

Strawberries.—The total production of strawberries in the United States in 1909 was 256,000,000 quarts. Maryland ranked first with 24,000,000 quarts and New Jersey second with 19,000,000 quarts. With regard to acreage, the leading States were Maryland, Tennessee, Missouri, New Jersey, and Michigan. In value of strawberries produced, New York was the leading State, followed by California, Missouri, Maryland, and Michigan.

Raspberries and loganberries.—The total production of these fruits in the United States in 1909 amounted to 60,918,000 quarts. New York ranked first with 14,752,000 quarts and Michigan second with 8,382,000 quarts.

Nearly four-fifths of the total value of all fruit grown in the United States in 1909 was contributed by five items, namely, apples 38.3 per cent, peaches and nectarines 13.2 per cent, grapes 10.1 per cent, strawberries 8.2 per cent, and oranges 8.1 per cent.

FRUIT PRODUCTS.

FARM OUTPUT.

In 1909 there were produced on farms in the United States 358,040,000 pounds of dried fruits (including raisins and dried grapes), 32,584,000 gallons of cider, 7,247,000 gallons of vinegar, and 18,636,000 gallons of wine and grape juice.

California produced 93.2 per cent of the dried fruits and 86 per cent of the wine and grape juice.

Pennsylvania ranked first in the production of cider and vinegar, New York second, and Michigan third.

¹ Throughout this bulletin, 1 ton equals 2,000 pounds.

FACTORY OUTPUT.

The factory output of fruit products in the United States in 1909 amounted to 5,529,000 cases of canned fruits, valued at \$13,015,000; 401,336,000 pounds of dried fruits, valued at \$19,894,000; vinegar and cider to the value of \$8,448,000; and vinous liquors to the value of \$13,121,000.

Canned fruits.—The principal fruits canned in 1909 in establishments engaged primarily in the canning industry were peaches, 1,467,000 cases, valued at \$3,754,000; apples, 1,206,000 cases, valued at \$1,899,000; pears, 638,000 cases, valued at \$1,833,000; apricots, 630,000 cases, valued at \$1,825,000; berries, 816,000 cases, valued at \$1,755,000; and cherries, 390,000 cases, valued at \$1,019,000.

California furnished 80 per cent of the total value of canned peaches, 72 per cent of the canned pears, practically all of the canned apricots, and 48 per cent of the canned cherries. New York led in the production of canned apples and berries and was second in the production of canned cherries.

Dried fruits.—The principal dried fruits packed in 1909 in establishments engaged primarily in the packing industry were prunes, 138,498,000 pounds, valued at \$5,130,000; raisins, 111,775,000 pounds, valued at \$4,838,000; apples, 44,568,000 pounds, valued at \$3,098,000; peaches, 46,843,000 pounds, valued at \$2,423,000; and apricots, 29,206,000 pounds, valued at \$2,277,000.

California reported all of the raisins and dried apricots, practically all of the dried peaches, and 86 per cent of the prunes. New York was the leading State in the production of dried apples, reporting 75 per cent of the value of this product, and California ranked second with 15.5 per cent.

Vinegar and cider.—Of the total value of vinegar and cider manufactured in cider-making establishments, New York contributed 26.6 per cent. Michigan ranked second in importance.

Vinous liquors.—This industry includes the manufacture of various kinds of wine and champagne. It is confined to a few States. California furnished 68.1 per cent of the total value of these products manufactured in wineries in 1909, New York 13.8 per cent, Ohio 9.9 per cent, Missouri 2.6 per cent, and New Jersey 1.3 per cent.

FRUIT TRADE OF THE UNITED STATES.

Statistics of the fruit trade of the United States for the fiscal years ending June 30, 1910 and 1915, are given in the following table. The fiscal year 1910 corresponds with the census production year 1909:

TABLE 2.—*Fruit trade of the United States, with foreign countries and insular possessions, 1910 and 1915.*

(United States Department of Commerce.)

Item.	Year ending June 30—			
	1910		1915	
	Quantity.	Value.	Quantity.	Value.
Exports (of domestic fruits) to foreign countries:		<i>Dollars.</i>		<i>Dollars.</i>
Apples, dried.....pounds..	25,076,618	2,056,692	42,589,169	3,270,658
Apples, green or ripe.....barrels..	922,078	3,175,433	2,351,501	8,087,466
Apricots, dried.....pounds..	12,028,834	1,218,423	23,764,342	2,241,061
Berries.....		(1)		535,479
Lemons.....		(1)		372,781
Oranges.....boxes..	932,118	2,213,905	1,759,405	3,851,013
Peaches, dried.....pounds..	2,617,069	151,520	14,464,655	834,813
Pears, green or ripe.....		302,958		992,497
Prunes.....pounds..	89,014,880	4,016,554	43,478,892	3,274,197
Raisins and other dried grapes.....do...	8,526,114	417,403	24,845,414	1,718,547
All other, green, ripe, or dried.....		2,119,210		2,717,449
Fruits, prepared or preserved:				
Canned.....		2,656,019		6,064,765
All other.....		176,474		269,180
Total.....		18,504,591		34,229,906
Imports from foreign countries:				
Bananas.....bunches..	38,156,659	11,642,693	41,091,585	13,512,960
Currents, dried.....pounds..	33,326,030	1,190,020	30,350,527	1,209,273
Dates.....do.....	22,693,713	516,704	24,949,374	420,203
Figs.....do.....	17,362,197	775,319	20,779,730	1,024,495
Grapes.....cubic feet..	1,365,310	1,682,994	1,323,928	1,523,547
Lemons.....pounds..	160,214,785	3,136,933		3,730,075
Olives.....gallons..	4,555,075	1,659,801	3,622,275	1,607,903
Oranges.....pounds..	4,676,118	82,457		50,022
Pineapples.....		1,317,462		1,309,750
Raisins and other dried grapes.....pounds..	5,042,683	296,047	2,808,806	238,958
Preserved fruits.....		956,368		1,022,968
All other.....		920,362		1,431,242
Total.....		24,177,160		27,081,396
Shipments from the United States to Hawaii:				
Apples, green or ripe.....barrels..	23,487	50,459	19,688	64,865
Oranges.....boxes..	32,363	70,286	52,428	104,957
All other, green, ripe, or dried.....		57,560		105,953
Prepared or preserved—				
Canned.....		42,013		88,133
All other.....		8,484		
Total.....		228,802		363,908
Shipments from the United States to Porto Rico:				
Raisins and other dried grapes.....pounds..	348,268	22,441	223,103	15,703
All other, green, ripe, or dried.....		30,891		47,819
Prepared or preserved.....		70,966		46,137
Total.....		124,298		109,659
Shipments to the United States from Hawaii:				
Bananas.....bunches..		(2)	230,144	147,021
Pineapples, fresh.....		(2)		52,928
Pineapples, canned.....		1,548,950		5,986,190
All other.....		224,375		2,637
Total.....		1,773,325		6,188,776
Shipments to the United States from Porto Rico:				
Fruits, green, ripe, or dried—				
Grapefruit.....boxes..		(2)	276,550	834,356
Oranges.....do.....	296,018	582,616	200,268	378,092
Pineapples, fresh.....		(2)		1,723,694
Pineapples, canned.....		106,617		84,733
All other.....		727,163		9,621
Total.....		1,416,396		3,030,496

¹ Included in "all other green, ripe, or dried" in 1910.² Included in "all other" in 1910.

CANADA.

AREA AND PRODUCTION OF FRUITS.

Orchards in Canada had an area in 1911 of 403,596 acres as compared with 356,106 acres in 1901, vineyards 9,836 acres in 1911 as against 5,600 acres in 1901, and small fruits 17,495 acres in 1911 as compared with 13,411 acres in 1891. Acreage of small fruits in 1901 was included with vegetables.

The principal orchard fruits grown in Canada are apples, peaches, plums, pears, and cherries, while grapes, strawberries, currants, and gooseberries are the leading small fruits.

TABLE 3.—*Fruit crops of Canada, 1900 and 1910.*

[Census of the Dominion of Canada.]

Kind.	Bearing trees.		Production.	
	1911	1901	1910	1900
Orchard fruits:	<i>Number.</i>	<i>Number.</i>	<i>Bushels.</i>	<i>Bushels.</i>
Apple.....	10,617,372	11,025,789	10,618,666	18,626,186
Peach.....	839,288	819,985	646,826	545,415
Pear.....	581,704	617,293	504,171	531,837
Plum.....	1,075,130	1,452,269	508,994	557,875
Cherry.....	741,992	903,140	238,974	336,751
Other.....	146,659	141,870	47,789	70,396
Total.....	14,002,145	14,960,346	12,565,420	20,668,460
Small fruits:				
Grapes.....pounds.....			32,898,438	24,302,634
Strawberries.....boxes.....			18,686,662	
Currants and gooseberries.....quarts.....			3,830,609	21,707,791
All other.....boxes.....			9,000,208	

Ontario was the leading Province in the production of fruits, reporting in 1910, 6,459,000 bushels of apples, 600,000 bushels of peaches, 424,000 bushels of pears, 347,000 bushels of plums, and 146,000 bushels of cherries.

IMPORTS.

Bananas, oranges, grapefruit, raisins, and wine are the chief items imported. During the five fiscal years ended March 31, 1909–1913, there was imported for consumption an annual average of 1,850,000 bunches of bananas, valued at \$1,826,000; 21,363,000 pounds of raisins, valued at \$1,133,000; oranges and grapefruit to the value of \$2,656,000; and wine to the value of \$1,229,000. Nearly all of the bananas, over one-half of the raisins, and nine-tenths of the oranges and grapefruit were obtained from the United States, while France, Spain, Portugal, and Japan supplied most of the wines.

Other fruits and fruit products of importance imported during the five years named, together with their average annual value, were dried apples, \$14,000; green apples, \$499,000; apricots, nectarines, pears, and quinces, \$245,000; berries, \$328,000; canned fruits, \$372,-

000; cherries, \$58,000; cranberries, \$93,000; dried currants, \$551,000; dates, \$154,000; figs, \$192,000; grapes, \$277,000; lemons and limes, \$650,000; peaches, \$234,000; pineapples, \$265,000; plums, \$194,000; prunes, \$495,000; and olive oil, \$190,000.

EXPORTS.

The principal fruit exported from Canada is apples. During the five years 1909–1913 there were exported from Canada on an average 1,242,000 barrels of apples annually, valued at \$3,626,000. Great Britain took 93 per cent of these apples, Germany 2.5 per cent, and the United States 1.7 per cent. Of the total value of fruit exported from Canada during the five years named 82.3 per cent was contributed by apples.

In addition to fresh apples there were exported from Canada during the five years 1909–1913 dried apples to the value of \$299,000 annually, berries \$123,000, canned or preserved fruits \$226,000, cider \$28,000, and wine \$7,000.

CENTRAL AMERICA.

Costa Rica.—The growing of bananas for export is the principal fruit industry of Costa Rica. Nearly one-half of the total value of all exports from that country is derived from this one item. During the five years 1909–1913 exports of bananas averaged 9,918,000 bunches annually, valued at \$4,615,000. Four-fifths of these bananas went to the United States and practically all of the rest to the United Kingdom.

Small quantities of oranges were also exported, principally to the United States.

The principal fruits and fruit products imported into Costa Rica during the five years 1909–1913 and their average annual value were fresh fruits \$6,758, dried fruits \$10,027, preserved fruits \$11,577, olive oil \$12,580, and wines \$114,000.

Guatemala.—Bananas constitute one of the principal sources of wealth in Guatemala. In 1913 the value of bananas exported amounted to \$826,000, as compared with \$667,000 in the year preceding.

Honduras.—During the fiscal year ended July 31, 1913, the value of bananas exported from Honduras amounted to \$1,654,000, or one-half of the total value of all exports. These bananas are shipped principally from Puerto Cortez, Ceiba, and Trujillo. Those from Puerto Cortez average about \$1,000,000 a year.

Nicaragua.—Bananas are grown in large quantities in the Bluefields section and shipped to New Orleans. Exports for the four years 1911–1914 averaged 1,458,000 bunches annually, valued at \$424,000.

MEXICO.

PRODUCTION.

A wide variety of fruits is grown in Mexico, ranging from the apple, peach, cherry, plum, quince, and grape of the Temperate Zone to the orange, lime, lemon, banana, pineapple, fig, zapote, mango, mamey, avocado (aguacate), and guava of the Semitropical and Tropical Zones. Oranges and bananas are the most important fruits grown in Mexico. In 1907 the production of these fruits amounted to 83,814,000 pounds and 80,492,000 pounds, respectively.

IMPORTS OF FRUITS AND FRUIT PRODUCTS.

During the four fiscal years ending June 30, 1909–1912, there were imported annually into Mexico on an average 4,021,000 pounds of dried fruits, valued at \$227,000; 156,000 pounds of preserved fruits, valued at \$17,000; 1,494,000 pounds of pickled fruits, valued at \$66,000; 1,230,000 pounds of olive oil, valued at \$195,000; and 22,297,000 pounds of wines, valued at \$1,655,000. The United States and Spain supplied most of the dried and preserved fruits and Spain the larger part of the pickled fruits and olive oil. The wines were obtained chiefly from Spain and France.

EXPORTS OF DOMESTIC FRUITS.

Exports of domestic fruits from Mexico, comprising strawberries, avocados, bananas, lemons, oranges, etc., averaged 24,196,000 pounds annually, valued at \$247,000, during the five-year period 1908–1912. Ninety-three per cent of these fruit exports was shipped to the United States and nearly all of the remainder to Canada.

WEST INDIES.

BRITISH WEST INDIES.

Bahamas.—The principal fruit exported from the Bahama Islands is canned pineapples. During the four years 1909–1912 there were exported 36,737 cases, valued at \$35,724, as compared with 31,000 and 33,000 cases in 1913 and 1914, respectively. Small quantities of grapefruit and oranges are also exported. The United States is the chief customer for these fruits.

Barbados.—During the four years 1909–1912 the average annual value of bananas exported was \$8,777. Nearly all of the bananas were shipped to the United Kingdom.

Jamaica.—The growing of bananas for export is the principal industry of Jamaica. In the season 1914–15 the area under bananas amounted to 85,854 acres, as compared with an average of 82,064 acres for the four preceding years. Exports during the four years 1909–1912 averaged 15,117,000 bunches annually, valued at \$6,379,000, as compared with 11,598,000 bunches, valued at

\$4,809,000, in 1913. Nearly all of the bananas are shipped to the United States. There were also exported grapefruit to the value of \$92,170 annually, oranges \$207,000, and lime juice \$19,258.

Leeward Islands.—The growing of limes is the principal fruit industry of the islands of this group, especially in Dominica, where the industry has attained its highest development. During the five years 1909–1913 the lime crop of Dominica averaged 354,000 barrels yearly. The flour barrel used for measuring limes will average about 160 pounds of fruit. Calculated on this basis the average annual production was 56,640,000 pounds. The average annual value of exports of limes and lime products during the three years 1911–1913 was \$508,090. There were also exported from Dominica small quantities of oranges and orange oil.

St. Lucia.—The cultivation of limes is making rapid strides and seems likely to assume an important place in the economics of the island. Exports of limes and lime products increased from \$1,411 in 1911 to \$5,280 in 1912 and \$15,220 in 1913.

Trinidad and Tobago.—The area devoted to the cultivation of limes and oranges in the season 1913–14 was 1,123 acres. The value of fruit exported has increased from \$3,908 in 1905 to \$57,396 in 1914.

CUBA.

Among the fruits grown in Cuba are the banana, pineapple, orange, lime, avocado (aguacate), anon (custard apple), fig, guava, mamey, and sapote.

Exports.—During the five years 1909–1913 there was exported from Cuba an annual average of 69,063,000 pounds of pineapples, valued at \$1,189,000; 82,223,000 pounds of bananas, valued at \$771,000; 6,195,000 pounds of oranges, valued at \$116,000; and 84,233 pounds of limes, valued at \$1,521. Practically all of these fruits were shipped to the United States.

Imports.—The principal fruits and fruit products imported into Cuba during the five years 1909–1913 and their average annual value were dried apples, \$5,740; fresh apples, \$59,000; canned fruit, \$73,000; grapes, \$39,000; prunes, \$15,300; raisins, \$27,300; olive oil, \$928,000; and wines, \$1,574,000.

DOMINICAN REPUBLIC.

The principal fruit exported from the Dominican Republic is the banana. Shipments of bananas from Puerto Plata during the three years 1912–1914 ranged between 592,000 bunches in 1913, valued at \$296,000, and 130,000 bunches in 1914, valued at \$65,000. Practically all of this fruit was shipped to the United States.

FRENCH WEST INDIES.

Small quantities of pineapples are exported from Guadeloupe, and of bananas, pineapples, and citrate of lime from Martinique.

HAITI.

Statistics of the commerce of Haiti are meager and fragmentary. In 1913 there were exported 601,000 pounds of orange peel, as compared with 622,000 pounds in 1912.

PORTO RICO.

The principal fruits cultivated in Porto Rico are pineapples, oranges, and grapefruit. The value of fruit exported during the fiscal year ended June 30, 1915, was the largest in the history of the island, amounting to \$3,031,000.¹ Of this value, pineapples contributed \$1,724,000, grapefruit \$834,000, and oranges \$378,000.

SOUTH AMERICA.

ARGENTINA.

PRODUCTION.

Grape growing is the most important fruit industry in Argentina. During the five years 1909-1913 the area devoted to the cultivation of grapes averaged 265,000 acres yearly, the quantity of grapes sent to wineries 1,324,000,000 pounds, and the production of wine 107,405,000 gallons. Mendoza is the leading Province in the production of grapes. Considerable quantities are also grown in the Provinces of San Juan and Entre Rios.

Statistics of production of other fruits are lacking. However, the Argentine census of 1908 reports the number of fruit trees in Argentina as 14,343,000. Slightly more than one-half of these is credited to the Province of Buenos Aires. The total number of peach trees in Argentina numbered 7,908,000, orange trees 2,117,000, apple trees 1,185,000, pear trees 459,000, apricot trees 312,000, olive trees 98,000, and lemon trees 64,000, the remainder being made up of fruit trees not specified. Buenos Aires was the leading Province in the growing of peaches and apples, reporting an area of 32,017 acres carrying 4,839,000 peach trees, and an area of 5,283 acres carrying 1,035,000 apple trees. With reference to orange culture, Corrientes is the leading Province, reporting an area of 15,987 acres carrying 1,514,000 trees.

IMPORTS.

The value of fresh, dried, and prepared or preserved fruits imported into Argentina during the five years 1909-1913 averaged \$1,779,000. Fresh fruits contributed 49 per cent of this value, prepared or preserved fruits 31.6 per cent, and dried fruits 19.4 per cent. In addi-

¹Nearly all of this fruit was shipped to the United States.

tion, imports of olive oil averaged \$3,780,000 annually during the five years 1909-1913, and wines \$9,738,000 annually.

The value of imports is the official valuation fixed by the valuation schedule of the tariff.

The principal fruits imported into Argentina during the five years 1909-1913 and their average annual value were olives \$387,000, apples \$201,000 (year 1913), oranges \$201,000, figs \$138,000, bananas \$117,000, raisins \$106,000, plums \$82,000, lemons \$55,000, dates \$29,000, grapes \$12,000, and preserved fruits \$112,000.

EXPORTS.

The value of exports of fruit from Argentina during the five years 1909-1913 averaged \$51,000 annually. These exports went chiefly to Brazil and Uruguay. The value is based on the current market price.

BRAZIL.

IMPORTS.

Imports of fruit for the three years 1910-1912 averaged 24,685,000 pounds, valued at \$2,432,000. Fresh fruits contributed 56.3 per cent of this value, dried fruits 25 per cent, and prepared or preserved fruits 18.7 per cent. In 1913 and 1914 the value of these imports was \$2,804,000 and \$1,721,000, respectively. The principal items imported and their average annual value were dried fruits \$607,000, olives \$398,000, grapes \$393,000, and apples \$206,000.

Imports of olive oil during the four years 1909-1912 averaged 8,340,000 pounds annually, valued at \$1,679,000, and of wines 148,380,000 pounds annually, valued at \$10,988,000. Portugal, Italy, Spain, and France supplied most of the olive oil and wines.

EXPORTS.

Exports of fruits from Brazil for the three years 1910-1912 averaged \$747,000 annually. Fresh fruits contributed 92.6 per cent of this value and prepared or preserved fruits 7.1 per cent. In 1913 and 1914 the value of fruit exported was \$824,000 and \$875,000, respectively. The principal fruits exported during the three years 1910-1912 and their average annual value, were bananas \$641,000, pineapples \$37,000, oranges \$11,788, and tangerines \$3,805.

CHILE.

AREA AND PRODUCTION.

The varieties of fruits cultivated in Chile are very numerous, including peaches, apples, plums, prunes, quinces, pears, grapes, oranges, lemons, figs, etc.

Of these fruits, the most important is the grape. During the three years 1911-1913 the area devoted to the cultivation of the vine

averaged 140,578 acres annually, as compared with 162,895 acres in 1914. French vines occupied 21.1 per cent of the area during the five-year period mentioned and native vines the remainder. In 1914 French vines numbered 75,453,000, as against 192,111,000 native vines. The vintage yield during the five years 1909-1913 averaged 36,217,000 gallons of wine annually, 7,022,000 gallons of chichas (a drink made from must), 5,709,000 gallons of chacolies (a sour wine made from green grapes), 485,279 gallons of brandy, and 1,600,000 pounds of raisins. The 1914 vintage produced 55,213,000 gallons of wine, 12,066,000 gallons of chichas, 10,474,000 gallons of chacolies, 665,180 gallons of brandy, and 1,536,000 pounds of raisins.

The area devoted to the cultivation of orchard fruits during the four years 1910-1913 averaged 29,283 acres, as compared with 42,926 acres in 1914; and the average annual production of the principal fruits was as follows: Apples 21,484,000 pounds (year 1914), cider 737,000 gallons, figs 2,737,000 pounds, dried peaches 2,365,000 pounds, olives 1,006,000 pounds, prunes 423,000 pounds, and cherries 197,000 pounds.

EXPORTS.

The value of exports of fruits from Chile during the five years 1909-1913 averaged \$184,000 yearly. Dried fruit, principally peaches and raisins, contributed 77.6 per cent of this value, prepared or preserved fruits 17.4 per cent, and fresh fruits 5 per cent. Wine exports averaged \$39,000 annually.

IMPORTS.

Imports of fruits into Chile for the five years 1909-1913 averaged 1,222,000 pounds annually, valued at \$99,000. Nearly all of these imports consisted of fresh fruits shipped in from Peru. Imports of olive oil and other oils for table use during this period averaged 17,255,000 pounds annually, valued at \$1,201,000. The United States and Italy supplied most of these oils.

PARAGUAY.

The growing of oranges is the principal fruit industry of Paraguay. It is estimated that the number of orange trees of producing age in 1913 was 1,500,000. In that year there were exported from Paraguay 164,271,000 oranges, 3,768,000 mandarins, 5,265 pineapples, and 38,142 bunches of bananas.

URUGUAY.

AREA AND PRODUCTION.

Of the total area under fruit trees in 1908, approximately one-half was devoted to the cultivation of peaches and one-fourth to oranges.

TABLE 4.—*Orchard fruit crops of Uruguay, 1908.*

Kind of tree.	Area cultivated.	Number of trees.	Production.
	<i>Acres.</i>		<i>Pounds.</i>
Orange.....	16,884	501,119	6,292,759
Lemon.....	1,403	40,332	315,901
Peach.....	33,418	2,095,597	14,229,895
Pear.....	6,716	229,198	1,791,650
Apple.....	4,935	118,391	350,889
Plum.....	1,436	68,278	219,777
Cherry, sweet.....	761	50,519	23,847
Cherry, sour.....	1,114	55,301	273,242
Olive.....	1,458	125,828	104,463
Total.....	68,125	3,284,563	23,602,423

VINEYARDS.

During the five years 1909–1913 the average area under vines was 14,386 acres, number of producing vines 21,528,000, production of grapes 29,255 tons, and production of wine 4,111,000 gallons.

TABLE 5.—*Vineyards of Uruguay, 1908–9 to 1912–13.*

Season.	Area cultivated.	Number of producing vines.	Production.	
			Grapes.	Wine.
	<i>Acres.</i>		<i>Tons of 2,000 lbs.</i>	<i>Gallons.</i>
1908–9.....	13,574	19,636,543	30,240	4,270,304
1909–10.....	14,080	20,689,479	31,285	4,490,295
1910–11.....	14,006	20,410,430	27,089	3,884,250
1911–12.....	15,188	22,772,976	20,806	2,788,803
1912–13.....	15,082	24,132,869	36,854	5,132,962

IMPORTS.

The value of imports of fruit into Uruguay during the three years 1909–1911 averaged \$282,000 annually. Dried fruits contributed 50.3 per cent of this value, fresh fruits 39.3 per cent, and preserved or pickled fruits 10.4 per cent. The principal fruits imported during the three years 1909–1911 and their average annual value were raisins \$60,212, figs \$41,087, oranges \$38,574, olives \$25,754, plums \$25,242, dried peaches \$22,269, bananas \$21,549, dates \$17,330, and apples \$4,622.

Imports of olive oil averaged \$526,500 annually and of wine \$1,714,000. Spain and Italy supplied the bulk of the olive oil and wine.

EXPORTS.

The value of fruit exported from Uruguay during the three-year period 1909–1911 averaged \$44,952 annually, as compared with \$47,831 in 1912. The principal fruits specified among these exports were peaches, oranges, pears, olives, and cherries.

EUROPE.

AUSTRIA-HUNGARY.

AREA AND PRODUCTION.

Austria.—During the five years 1909–1913 the average annual production of fruit in Austria was as follows:

Apples, pears, etc., 1,315,000,000 pounds; cherries, plums, etc., 1,075,000,000 pounds; citrus fruits (reported only in 1913), 75,000 pounds; figs, 15,306,000 pounds; and grapes for table use, 10,210,000 pounds.

There was also produced during this period an annual average of 10,083,000 pounds of olive oil and 110,734,000 gallons of wine. Statistics of the production of the various fruits of Austria and of wine for each of the five years 1909–1913 are given in the following table:

TABLE 6.—*Production of fruit and wine in Austria.*

Kind.	1909	1910	1911	1912	1913
Grapes for table use...pounds..	10,696,499	8,929,512	10,482,212	12,027,416	8,914,741
Apples, pears, etc.....do.....	1,043,832,906	1,415,680,363	951,926,659	2,065,581,231	1,099,817,841
Cherries, plums, etc.....do.....	1,735,670,337	911,423,968	570,496,026	1,586,722,049	569,140,418
Figs.....do.....	16,172,284	18,734,250	15,392,517	14,612,530	11,619,565
Citrus fruit.....do.....					75,177
Wine.....gallons..	165,174,168	67,281,378	101,352,889	104,872,135	114,989,186

Hungary.—Statistics of fruit in Hungary for recent years are confined to the area under vines, production of wine, and grapes sold. During the three years 1909–1911 the average area of the vineyards of Hungary was 864,000 acres; quantity of wine produced, 106 million gallons; grapes sold, 24 million pounds; and the average annual value of all products of the vine \$30,993,000.

IMPORTS.

Imports of fruits into Austria-Hungary during the five years 1909–1913 averaged 399,806,000 pounds annually, valued at \$9,496,000. Fresh fruits contributed 60.9 per cent of this value, dried fruits 34.6 per cent, and prepared or preserved fruits 4.5 per cent. In addition, imports of wines averaged 8,841,000 pounds annually, valued at \$1,682,000, and of edible olive oil 7,211,000 pounds, valued at \$708,000.

The principal fruits imported into Austria-Hungary are oranges, figs, lemons and cedrates, and raisins. During the five years 1909–1913 the average annual imports of these fruits were as follows: Oranges 156,719,000 pounds, valued at \$2,598,000; figs 67,331,000 pounds, valued at \$1,813,000; lemons and cedrates 73,686,000 pounds, valued at \$1,393,000; and raisins 20,416,000 pounds, valued at \$1,159,000.

Oranges and lemons were obtained chiefly from Italy, figs from Greece, Italy, and Turkey, raisins from Greece and Spain, wines from France, and olive oil from Greece, Italy, and France.

Other fruits and fruit products imported during the period named and their average annual value were apples, pears, and quinces \$988,000, dates \$169,000, cherries and pickled fruits \$137,000 each, prunes \$126,000, plum marmalade \$123,000, grapes \$93,000, plums \$90,000, apricots and pineapples \$78,000 each, preserved citrus fruits and peel \$67,000, olives \$66,000, dried currants \$17,000, and olive oil for industrial uses \$178,000.

EXPORTS.

Exports of fruits from Austria-Hungary during the five years 1909–1913 averaged 273,879,000 pounds annually, valued at \$5,755,000. Fresh fruits contributed 83.7 per cent of this value, dried fruits 12.7 per cent, and prepared or preserved fruits 3.6 per cent. In addition, exports of wines other than sparkling averaged \$1,271,000 annually, and of edible olive oil \$32,000.

The principal fruits exported from Austria-Hungary were apples, pears, and quinces. During the five years 1909–1913 exports of these fruits averaged 165,898,000 pounds annually, valued at \$3,076,000. Of the other fruits exported the more important and their average annual value were prunes \$727,000, lemons and cedrates \$435,000, plums \$332,000, grapes \$268,000, oranges \$209,000, pickled fruits \$151,000, apricots \$107,000, cherries \$88,000, and peaches \$13,000.

The bulk of the fruits exported went to Germany and the larger part of the olive oil to Italy. Fifty-two per cent of the wines was shipped to Switzerland and 41 per cent to Germany.

BELGIUM AND NETHERLANDS.

BELGIUM.

Area.—The area under orchard fruits in Belgium in 1910 amounted to 157,000 acres. On 10,546 acres of this area other crops were planted between the trees. Official statistics of the production of the various kinds of fruits are not available.

Imports.—The total value of imports of fruits, exclusive of preserved fruits, into Belgium during the five years 1909–1913 averaged \$3,838,000 annually. Fresh fruits contributed 55.2 per cent of this value and dried fruits 44.8 per cent. In addition, imports of wine averaged \$7,057,000 annually and of olive oil \$603,000 annually.

Citrus fruits and apples are the chief fruits imported. During the five years 1909–1913 there was imported annually an average of 53,325,000 pounds of citrus fruits, valued at \$1,240,000, and 30,447,000 pounds of fresh apples, valued at \$568,000. Of the other

fruits imported during the period named, the principal ones and their average annual value were raisins \$508,000, prunes \$331,000, figs \$297,000, dried currants \$213,000, bananas \$83,000, fresh pineapples \$22,000, and grapes \$10,000.

Spain supplied the greater part of the citrus fruits and France most of the apples, wines, and olive oil.

Exports.—The principal fruits exported from Belgium during the five years 1909–1913 and their average annual value were apples valued at \$738,000 and grapes valued at \$374,000. Germany was the principal customer for apples and the United Kingdom for grapes.

NETHERLANDS.

Area.—During the five years 1909–1913 the area of the commercial orchards of the Netherlands averaged 52,790 acres annually, as compared with 57,147 acres in 1914.

Imports.—The value of imports of fruits into the Netherlands during the five years 1909–1913 averaged \$2,020,000 annually. Fresh fruits contributed 70.2 per cent of this value, dried fruits 26.8 per cent, and preserved fruits 3 per cent. In addition, imports of wines averaged \$2,102,000 annually and imports of olive oil \$35,000 annually.

The principal fruits imported during the period named and their average annual value were oranges and mandarins \$723,000, dried fruits \$541,000, lemons \$111,000, apples \$88,000, pears \$62,000, canned fruits and grapes \$48,000 each, and pineapples \$17,000. The chief source of supply for oranges was Spain, for lemons Italy, for dried fruits United States, and for apples, grapes, and pears Belgium.

Exports.—During the five years 1909–1913 there was exported from the Netherlands an average of 91,003,000 pounds of fruits annually, valued at \$1,705,000. Fresh fruits contributed 84.9 per cent of this value, prepared or preserved fruits 14 per cent, and dried fruits 1.1 per cent. There were also exported during these five years wines to the value of \$449,000 annually and olive oil to the value of \$47,000.

The principal fruits exported during the five years named and their average annual value were apples \$514,000, strawberries \$263,000, pears \$127,000, cherries \$73,000, grapes \$44,000, currants \$42,000, and dried fruits \$18,000.

Germany took 83.4 per cent of the apples exported, practically all of the strawberries, and 76.2 per cent of the pears, while Belgium was the chief customer for wines.

DENMARK, NORWAY, AND SWEDEN.

DENMARK.

Imports.—General imports of fruits into Denmark for the five years 1909–1913 averaged 56,896,000 pounds annually, valued at \$1,875,000. Dried fruits contributed 49.6 per cent of this value, fresh fruits 45 per cent, and prepared or preserved fruits 5.4 per cent. In addition, imports of wines averaged \$734,000 annually, and of olive oil \$105,000.

The principal fruits imported during the five years named and their average annual value were prunes \$340,000, fresh apples \$250,000, raisins \$226,000, oranges \$214,000, prepared or preserved fruits \$101,000, bananas \$92,000, dried apples \$90,000, apricots \$84,000, lemons \$70,000, grapes \$64,000, figs \$55,000, pears and dried currants \$37,000 each, and plums \$28,000.

Prunes and apples were obtained chiefly from the United States, raisins from Spain, oranges and olive oil from Italy, and wine from France.

Exports.—Exports of fruit from Denmark during the five years 1909–1913 averaged 412,000 pounds annually, valued at \$17,000. Fresh fruits contributed 59 per cent of this value, and prepared or preserved fruits practically all of the remainder.

NORWAY.

Imports.—Imports of fruits into Norway during the five years 1909–1913 averaged 31,839,000 pounds annually, valued at \$1,319,000. Fresh fruits contributed 59.4 per cent of this value, dried fruits 38.5 per cent, and preserved fruits 2.1 per cent. In addition, imports of wine averaged \$1,129,000 annually, and of olive oil \$495,000.

The principal fruits imported into Norway during the five years named and their average annual value were oranges and lemons \$326,000, apples and pears \$206,000, prunes and dates \$201,000, and raisins \$177,000.

Apples and pears were obtained chiefly from the United States, prunes and dates from Germany, oranges, raisins, and wines from Spain, and olive oil from France.

Exports.—Exports of fruit from Norway during the five years 1909–1913 averaged 1,787,000 pounds annually, valued at \$67,000. The greater part of these exports consisted of fresh berries which were shipped principally to the United Kingdom.

SWEDEN.

Imports.—Imports of fruit into Sweden during the five years 1909–1913 averaged 38,566,000 pounds annually, valued at \$2,179,000. Fresh fruits contributed 65.1 per cent of this value, dried fruits 33 per cent, and prepared or preserved fruits 1.9 per cent. In addition,

imports of wines averaged \$1,254,000 annually, and of olive oil \$36,500.

The principal fruits imported during the five years named and their average annual value were oranges \$443,000, prunes \$423,000, fresh apples \$294,000, dried apples \$187,000, raisins \$216,000, grapes \$88,000, pears \$87,000, bananas \$81,000, preserved fruit \$69,000, lemons \$61,000, and figs \$56,000.

Oranges were imported chiefly from Italy and Germany, prunes and dried apples from the United States, raisins from Spain, fresh apples from Great Britain, and wine from France.

Exports.—Exports of fruit from Sweden during the five years 1909–1913 averaged 10,406,000 pounds annually, valued at \$330,000. Red whortleberries, shipped chiefly to Germany, comprised practically all of these exports.

FRANCE.

AREA AND PRODUCTION.

The cultivation of the vine is the most important fruit industry of France. During the 10 years 1904–1913, the area devoted to the growing of wine grapes showed a gradual reduction from 4,262,000 acres in 1904 to 3,830,000 acres in 1913, averaging 4,036,000 acres for the whole period. From the grapes grown on this area there was obtained a yearly average of 1,408,000,000 gallons of wine, valued at \$224,534,000. In 1914 the area under wine grapes amounted to 3,803,000 acres and the production of wine to 1,585,000,000 gallons, valued at \$211,402,000.

Statistics with reference to the production of table grapes are not available for years prior to 1911. During the three years 1911–1913, however, table grapes to the extent of 71,000 short tons a year, valued at \$4,576,000, were grown on an area averaging 47,000 acres, as compared with 89,000 short tons, valued at \$9,223,000, produced from 80,000 acres in 1914.

Statistics of the principal orchard fruits are shown in the following table:

TABLE 7.—*Production of orchard fruits in France for the 10-year period 1904–1913, together with comparative figures for 1914 and 1915.*

Name of fruit.	Quantity (in tons of 2,000 pounds).		
	Average, 1904–1913	1914	1915
Olives.....	87,782	90,983	42,719
Peaches.....	31,967	22,042	15,027
Apricots.....	7,336	9,402	7,800
Apples and pears for table use.....	171,650	204,250	297,601
Apples and pears for cider.....	2,782,593	2,673,534	4,940,913
Cherries.....	33,797	43,575	42,869
Plums.....	43,609	27,659	28,654
Plums for prunes.....	32,853	14,138	17,921

Expressed in terms of bushels of 48 pounds, there was produced during the 10 years 1904–1913 an annual average of 1,332,000 bushels of peaches, 7,152,000 bushels of apples and pears for table use, and 115,941,000 bushels of apples and pears for cider. The production of cider and perry averaged 434,142,000 gallons annually, ranging between 72,000,000 gallons in 1907 and 960,000,000 gallons in 1904. In 1915 there were produced 626,000 bushels of peaches, 12,400,000 bushels of apples and pears for table use, 206,000,000 bushels of apples and pears for cider, and 606,000,000 gallons of cider and perry. Statistics of the production of apples for table use were stated separately in 1915 when the production was given as 455,000,000 pounds, equivalent to 9,478,000 bushels of 48 pounds.

IMPORTS.

Imports of fruit into France during the five years 1909–1913 averaged 420,450,000 pounds annually, valued at \$9,958,000. Fresh fruits contributed 63.8 per cent of this value, dried fruits 32.7 per cent, and prepared or preserved fruits 3.5 per cent. In addition, there was imported an annual average of 215,000,000 gallons of wine, valued at \$51,000,000, and 38,480,000 pounds of olive oil, valued at \$4,938,000.

The principal fruits imported during the five years 1909–1913 were lemons, oranges, and raisins. Imports of lemons and oranges averaged 218,000,000 pounds annually, valued at \$2,890,000, and of raisins 17,540,000 pounds, valued at \$1,044,000. Of the other fruits imported, the more important and their average annual value were figs \$852,000, bananas \$829,000, prunes \$717,000, grapes for table use \$508,000, mandarins \$431,000, dried apples and pears for cider and perry \$150,000, and preserved pineapples \$111,000.

Lemons and oranges were imported chiefly from Spain, raisins from Turkey, olive oil from Tunis, and wine from Algeria.

EXPORTS.

Exports of fruits from France during the five years 1909–1913 averaged 403,138,000 pounds annually, valued at \$8,957,000. Fresh fruits contributed 69.7 per cent of this value, dried fruits 19.7 per cent, and preserved fruits 10.6 per cent. In addition, exports of wines averaged 52,094,000 gallons annually, valued at \$41,586,000, and of olive oil 11,898,000 pounds annually, valued at \$1,461,000.

The principal fruits exported during the five years named were apples, pears, and prunes. Exports of apples and pears for table use averaged 61,151,000 pounds annually, valued at \$1,718,000; of apples and pears for cider and perry 177,920,000 pounds annually, valued at \$890,000; and of prunes 21,512,000 pounds annually, valued at \$1 514,000.

Other important fruits exported and their average annual value were sugared fruits \$749,000, table grapes \$689,000, and wine grapes \$358,000.

Apples and pears for table use were shipped principally to Belgium and the United Kingdom, and for cider and perry to Germany, prunes to the United Kingdom, wines to Belgium, the United Kingdom, and Germany, and olive oil to the United States, Belgium, and the United Kingdom.

GERMANY.

ORCHARD FRUITS.

The number of fruit trees in Germany in 1900 with comparative figures for the year 1913 is shown in the following table. Statistics of production are not given.

TABLE 8.—*Number of fruit trees in Germany, 1900 and 1913.*

Kind of tree.	1900	1913		
		Bearing.	Nonbearing.	Total.
	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>
Apple.....	52,332,853	49,744,082	24,631,847	74,375,929
Pear.....	25,116,266	22,200,657	8,588,229	30,788,886
Plum.....	69,436,083	52,673,330	11,873,887	64,547,217
Cherry.....	21,548,024	16,218,848	5,171,240	21,390,088
Apricot.....	(1)	511,679	258,052	769,731
Peach.....	(1)	1,285,447	735,741	2,021,188

¹ No data.

VINEYARDS.

The area of vineyards harvested, and production and value of must, during the five years 1909–1913, are shown in the following table. Data concerning grapes intended for table use are not recorded, an earlier inquiry having shown that the quantities thus consumed are inconsiderable:

TABLE 9.—*Area and production of vineyards in Germany, 1909–1913.*

Year.	Area harvested.	Must produced.	Value of must.
	<i>Acres.</i>	<i>Gallons.</i>	<i>Dollars.</i>
1909.....	283,515	53,378,719	17,436,240
1910.....	278,002	22,352,454	13,887,060
1911.....	271,941	77,213,879	42,471,060
1912.....	268,944	53,346,478	22,436,080
1913.....	261,620	26,547,685	11,528,880

IMPORTS.

The value of imports of fruits into Germany for home consumption during the five years 1909–1913 averaged \$41,485,000 annually, mounting steadily from \$35,000,000 in the first-named year to \$53,000,000 in the last named. Fresh fruits contributed 66.7 per

cent of the total value, dried fruits 31.1 per cent, and preserved fruits 2.2 per cent. In addition, there were imported annually 1,277,000 bottles of sparkling wine, valued at \$1,741,000, 282,000,000 pounds of wines other than sparkling, valued at \$13,575,000, 6,320,000 pounds of olive oil for table use, valued at \$916,000, and 7,618,000 pounds of olive oil for industrial uses, valued at \$491,000.

The principal fruits imported into Germany during the five years 1909-1913 were fresh apples 560,275,000 pounds annually, valued at \$7,502,000; dried apples 27,355,000 pounds, valued at \$2,157,000; grapes 169,016,000 pounds, valued at \$5,633,000; oranges and mandarins 288,117,000 pounds, valued at \$4,899,000; prunes 73,290,000 pounds, valued at \$4,044,000; raisins 39,990,000 pounds, valued at \$2,478,000; bananas 66,719,000 pounds, valued at \$1,894,000; fresh pears and quinces 100,678,000 pounds, valued at \$1,847,000; fresh lemons, dates, figs, etc., 80,732,000 pounds, valued at \$1,827,000; fresh berries 50,704,000 pounds, valued at \$1,697,000; dried currants 36,342,000 pounds, valued at \$1,664,000; and fresh plums 60,438,000 pounds, valued at \$1,095,000. Of the other fruits imported during the five years named the more important and their average annual value were dried figs \$803,000, fresh cherries \$798,000, dried peaches and apricots \$748,000, fresh and preserved pineapples \$662,000, fresh peaches \$485,000 and preserved fruits \$436,000.

Dried apples, dried peaches and apricots, and prunes were imported chiefly from the United States; fresh apples and wines from France; fresh pears, quinces, and plums from Austria-Hungary; cherries, grapes, lemons, peaches, and olive oil from Italy; bananas and oranges from Spain; fresh berries from the Netherlands; dried currants from Greece; dried figs and raisins from Turkey; pineapples from Portugal; and preserved fruit from Serbia.

EXPORTS.

Exports of fruits from Germany during the five years 1909-1913 averaged 41,353,000 pounds annually, valued at \$1,216,000. Fresh fruits contributed 80.3 per cent of this value, dried fruits 16.5 per cent, and preserved fruits 3.2 per cent. There were also exported wines to the value of \$5,627,000 annually. Fifteen per cent of the value of wine exports was derived from sparkling wines and 85 per cent from wines other than sparkling.

The principal fruits exported from Germany during the five years 1909-1913 and their average annual value were fresh plums \$275,000, berries (not including strawberries) \$242,000, pears and quinces \$197,000, apples \$121,000, and cherries \$98,000.

Fresh fruits are exported principally to the United Kingdom, dried fruits to Sweden, France, and Finland, sparkling wines to the United Kingdom, and other wines to the United States and the United Kingdom.

ITALY.

PRODUCTION OF CITRUS FRUITS.

The latest estimates of the area under citrus fruits give it as 111,000 acres especially devoted to their cultivation and 154,000 acres under mixed crop. Of the area especially devoted to the cultivation of citrus fruits 99.7 per cent is located in six departments, namely, Sicily 70.9 per cent, Calabria 18.7 per cent, Campania 6.9 per cent, Apulia 1.4 per cent, Sardinia 1.2 per cent, and Liguria 0.6 per cent.

The annual production of all citrus fruits in Italy for the five years 1909-1913 averaged 867,000 tons, as compared with 966,000 tons in 1913, 884,000 tons in 1914, and 893,000 tons in 1915. The six departments named above contributed 99.8 per cent of the total production for the five years 1909-1913, and 99.7 per cent for each of the three years 1913-1915. Sicily produced 70.6 per cent of all the citrus fruits grown in Italy during the five years named, Calabria 13.5 per cent, and Campania 9.1 per cent. In 1914 and 1915 the proportion produced by Sicily was 72.2 per cent and 74.1 per cent, respectively.

Statistics of production of the various kinds of citrus fruits are not given for all Italy. For the years 1913 and 1914, however, data concerning the production of lemons, oranges, and mandarins are given for the six leading departments already mentioned. The total combined production of the fruits specified in these six departments was 962,000 tons in 1913 and 878,000 tons in 1914.

Lemons.—The production of lemons was 474,000* tons in 1913 and 471,000 tons in 1914. Expressed in terms of boxes containing 75 pounds of fruit, the production of lemons in these two years was equivalent to 12,651,000 boxes and 12,549,000 boxes, respectively. Sicily produced 84 per cent of the lemons in 1913 and 86.6 per cent in 1914, Campania 5.2 per cent and 6.3 per cent, respectively, and Calabria 6.4 per cent, and 3.3 per cent, respectively.

Oranges.—The production of oranges was 453,000 tons in 1913 and 378,000 tons in 1914. On the basis of 64 pounds of fruit to a box, the production of oranges in these two years was equivalent to 14,165,000 boxes and 11,798,000 boxes, respectively. Sicily produced 61 per cent of the oranges in 1913 and 57.2 per cent in 1914, Calabria 19.3 per cent and 18.9 per cent, respectively, and Campania 14.4 per cent and 17.9 per cent, respectively.

Mandarins.—The production of mandarins was 35,000 tons in 1913 and 30,000 tons in 1914. Slightly more than one-half of the mandarin crop was grown in Sicily.

VINEYARDS.

The area under vines in Italy during the five years 1910–1914 averaged 10,907,000 acres annually. Of this area 2,195,000 acres were especially devoted to the growing of grapes and in the case of the remaining 8,712,000 acres, other crops were grown on the same ground. In 1915 the area under pure crop was 2,157,000 acres and under mixed crop 8,756,000 acres.

The production of grapes for the five years 1909–1913 averaged 7,823,000 tons as compared with 7,495,000 tons in 1914 and 3,320,000 in 1915.

The production of wine for the five years 1909–1913 averaged 1,216,000,000 gallons annually, ranging between 1,632,000,000 gallons in 1909 and 774,000,000 gallons in the year following. In 1914 the vintage amounted to 1,137,000,000 gallons and in 1915 to 503,000,000 gallons.

OLIVES.

The olive groves of Italy during the three years 1911–1913 covered an average area of 5,723,000 acres, of which 1,353,000 acres were under pure crop and 4,370,000 acres under mixed crop. In 1914 the area under olive trees was 5,678,000 acres. The production of olives averaged 1,187,000 tons annually, as compared with 1,188,000 tons in 1914 and 1,026,000 tons in 1915.

The production of olive oil averaged 47,913,000 gallons annually, ranging between 25,000,000 gallons in 1912 and 68,000,000 gallons in 1909. In 1914 there were produced 47,128,000 gallons of olive oil.

OTHER FRUITS.

Apples, pears, quinces, and pomegranates.—These fruits are bulked together in the statistics of production. During the five years 1909–1913 their average annual production was 250,000 tons, as compared with 266,000 tons in 1914, and 356,000 tons in 1915.

Dried figs and prunes.—The production of dried figs and prunes in Italy averaged 87,000 tons annually, as compared with 77,000 tons in 1914 and 107,000 tons in 1915.

Pulpous fruits.—The production of pulpous fruits, such as peaches, apricots, cherries, etc., during the five years 1909–1913 averaged 117,000 tons annually, as compared with 126,000 tons in 1914 and 130,000 tons in 1915.

EXPORTS.

Exports of fruits from Italy during the five years 1909–1913 averaged 1,205,743,000 pounds annually, valued at \$21,492,000. Fresh fruits contributed 90 per cent of this value, dried fruits 6.5 per cent, and preserved fruits 3.5 per cent.

Exports of citrus fruits during this period averaged 857 million pounds annually.

The principal fruits exported during the five years 1909-1913 were lemons 588,522,000 pounds annually, valued at \$7,207,000; apples and pears 161,781,000 pounds, valued at \$4,203,000; oranges 264,667,000 pounds, valued at \$3,785,000; table grapes 47,655,000 pounds, valued at \$1,426,000; and dried figs 40,956,000 pounds, valued at \$1,273,000. Of the other fruits exported, the more important and their average annual value were candied fruit \$756,000, peaches \$559,000, cherries \$439,000, wine grapes \$287,000, limes and cedrates \$139,000, and apricots \$117,000. The chief customer for lemons was the United States; for apples, pears, and grapes, Germany; and for oranges and dried figs, Austria-Hungary.

In addition to fruits, fruit products constitute an important item of export. The principal fruit products exported from Italy during the five years 1909-1913 were the following: Wines to the value of \$10,468,000 annually; olive oil for table use 54,780,000 pounds annually, valued at \$8,558,000; olive oil for industrial uses 20,350,000 pounds, valued at \$1,482,000; citrate of lime 12,447,000 pounds, valued at \$1,733,000; and essential oil of lemon 1,009,000 pounds annually, valued at \$1,414,000. Wines were shipped chiefly to Switzerland, Argentina, and Brazil; olive oil for table use to the United States, Argentina, and France; olive oil for industrial uses to the United States, Egypt, and Austria-Hungary; citrate of lime to the United States, the United Kingdom, and France; and essential oil of lemon to the United States and the United Kingdom. Other fruit products of importance exported and their average annual value were essential oil of bergamot \$633,000, essential oil of orange \$371,000, essential oil of mandarin \$5,903, citrus fruit peel \$137,000, concentrated citrus fruit juices \$56,000, and raw citrus fruit juices \$21,000.

IMPORTS.

Imports of fruits into Italy during the five years 1909-1913 averaged 20,528,000 pounds annually, valued at \$927,000. These imports do not include fruits listed with vegetables. Two-thirds of the total value of fruits imported consisted of dried fruits and the remainder of fresh fruits. In addition, imports of olive oil for table use averaged \$991,000 annually and of wine \$599,000.

The principal fruits imported during the five years 1909-1913 and their average annual value were dates \$305,000, bananas \$185,000, raisins \$153,000, prunes \$139,000, and limes and cedrates \$93,000.

Olive oil was imported chiefly from Spain, wines from France, dates from Tunis, bananas from Spanish Africa, raisins from Turkey, and prunes from the United States.

RUSSIA.

PRODUCTION.

Fruit is cultivated extensively throughout the Russian Empire, but no official estimates of production are available, except for grapes. Statistics of the vintage of 1910 are shown in the following table:

TABLE 10.—*Area of vineyards and production of grapes and must in Russia in 1910.*

District.	Area.	Production of grapes.	Production of must.
	<i>Acres.</i>	<i>Pounds.</i>	<i>Gallons.</i>
European Russia.....	303,183	426,105,761	21,348,085
Northern Caucasus.....	53,264	258,878,218	14,597,857
Transcaucasia.....	229,168	488,700,077	22,880,487
Turkestan.....	80,468	84,153,658	175,885
Total.....	666,083	1,257,837,714	59,002,314

The home market for fresh apples, pears, peaches, cherries, plums, and apricots is supplied practically entirely by Russian fruit growers, oranges and lemons being the only fruits imported in large quantities. These latter fruits, together with olives, are grown in the Caucasus, especially near the Black Sea, but not in sufficient quantity to supply domestic needs.

IMPORTS.

The value of fruits imported into Russia during the five years 1909–1913 averaged \$10,952,000 annually. Fresh fruits contributed 49.7 per cent of this value, dried fruits 46.6 per cent, and prepared or preserved fruits 3.7 per cent. In addition, annual imports of wine averaged \$6,146,000 and of olive oil \$1,459,000.

The principal fruits imported into Russia during the period named were the following: Raisins, 69,857,000 pounds annually, valued at \$2,977,000; oranges, 117,826,000 pounds, valued at \$2,345,000; and lemons, 92,913,000 pounds, valued at \$1,609,000. Of the remaining fruits imported the more important and their average annual value were prunes, \$477,000; fresh apples, pears, peaches, cherries, plums, and apricots, \$439,000; dried figs, \$379,000; olives, \$336,000; dates, \$291,000; grapes, \$234,000; fresh berries, \$28,000; canned berries and other fruits, \$20,000; and dried currants, \$15,000.

Raisins and dates were obtained chiefly from Persia, oranges and lemons from Italy, deciduous tree fruits from Japan and Germany, olive oil from Germany, and wines from France and Germany.

EXPORTS.

The value of exports of fruits from Russia during the five years 1909–1913 averaged \$1,260,000 annually. Fresh and preserved

fruits contributed two-thirds of this value, and dried fruits the remainder. In addition, exports of wine averaged \$86,000 annually.

The chief fruits exported during the period named were raisins, \$547,000, fresh huckleberries, \$56,000, and dried berries, \$21,000. Germany was the principal customer for all of these fruits.

SOUTHEASTERN EUROPE.

BULGARIA.

AREA AND PRODUCTION.

Orchard fruits.—The area under orchard fruits in Bulgaria during the three years 1909–1911 averaged 20,475 acres annually, 2,271 acres of which carried trees not of bearing age. The production of orchard fruits averaged 69,325,000 pounds annually, valued at \$979,000. Plums are cultivated more extensively than any other orchard fruit, the area planted with plum trees averaging 12,132 acres annually, or approximately three-fifths of the total area under orchard fruits. The production of plums averaged 39,687,000 pounds annually, valued at \$441,000. The only other orchard fruit for which statistics of area and production are given separately is the apple, to which only 319 acres were devoted in 1911.

Vineyards.—Wine grapes in Bulgaria during the three years 1909–1911 were cultivated on an area averaging 192,000 acres annually, of which 16,173 acres were planted with vines not of bearing age. There was a marked reduction in acreage during the period named, from 211,000 acres in 1909 to 168,000 acres in 1911. The production of grapes averaged 363,924,000 pounds annually and of must 23,251,000 gallons.

IMPORTS.

The total value of imports of fruits during the three years 1909–1911 averaged \$883,000 annually, declining from \$1,506,000 in 1909 to \$471,000 in 1911. Fresh fruits contributed 50.8 per cent of the total value of fruit imports, and dried, prepared, or preserved fruits 49.2 per cent. In addition, imports of olive oil averaged \$451,000 annually and of wines \$28,000.

The principal fruits imported and their average annual value were olives \$211,000, citrus fruits \$101,000, dates \$69,000, grapes \$63,000, figs \$52,000, raisins \$31,000, and prunes \$27,000. Turkey supplied the bulk of the fruits and olive oil and France most of the wines.

EXPORTS.

The value of exports of fruits from Bulgaria averaged \$33,000 annually. Dried, prepared, or preserved fruits contributed 87.5 per cent of this value and fresh fruits 12.5 per cent. Nearly all of the

dried fruits, chiefly prunes, were exported to Austria-Hungary, while Turkey took the larger part of the fresh fruits.

GREECE.

PRODUCTION.

The principal fruits cultivated in Greece are currant grapes, olives, and figs, and of these the most important is the currant grape. The currant is the dried product of a small European grape, and practically the entire world's supply is grown in Greece. The word "currant" is generally believed to be a corruption of the name "Corinth," the Greek port whence early shipments of this fruit first reached western Europe. From reports of the American consul at Patras it is estimated that the dried currant crop of Greece during the five years 1909-1913 averaged about 155,000 tons annually, ranging between 185,000 tons in 1909 and 123,000 tons in the year following. The crop of 1914 is estimated at 158,000 tons and that of 1915 at 130,000 tons.

EXPORTS.

Exports of domestic fruits from Greece during the five years 1909-1913 averaged 301,819,000 pounds annually, valued at \$9,759,000. Dried fruits contributed 90.8 per cent of this value, prepared or preserved fruits 7.8 per cent, and fresh fruits 1.4 per cent. In addition, exports of wines from Greece averaged 126,613,000 pounds annually, valued at \$2,656,000, and of edible olive oil 17,624,000 pounds, valued at \$1,677,000.

The principal fruit exported from Greece is the dried currant. During the five years 1909-1913 exports of dried currants from Greece averaged 233,238,000 pounds annually, valued at \$7,521,000, or 77.1 per cent of the total value of all fruits exported. The United Kingdom is the principal customer for these currants, exports to that country averaging 52 per cent of the total, as compared with 12.7 per cent to America, 12.6 per cent to the Netherlands, 12.3 per cent to Germany, and 5 per cent to Austria-Hungary. Of the other fruit and fruit products exported during this period the more important and their average annual value were figs \$1,007,000, olives \$764,000, raisins \$318,000, citrus fruits \$87,000, grapes \$9,949, olive oil for industrial uses \$267,000, and must \$37,000.

IMPORTS.

Imports of fruits into Greece during the five years 1909-1913 averaged 1,971,000 pounds annually, valued at \$82,000. Fresh fruits contributed 52.9 per cent of this value, dried fruits 41.6 per cent, and prepared or preserved fruits 5.5 per cent. In addition imports of wine during this period averaged \$77,000 annually. The principal fruit imported into Greece is dates.

CRETE.

Exports.—Exports of fruit from the Island of Crete during the four years 1909–1912 averaged 27,784,000 pounds annually, valued at \$601,000. Dried or preserved fruits contributed 62.8 per cent of this value and fresh fruits 37.2 per cent. In addition, the average annual value of olive oil and wines exported was \$1,176,000 and \$203,000, respectively.

Imports.—Imports of fruits into Crete during the four years 1909–1912 averaged 126,500 pounds annually, valued at \$4,600. The largest single item was dried or preserved olives, imported principally from Greece.

ROUMANIA.

AREA AND PRODUCTION.

Orchard fruits.—The principal orchard fruit grown in Roumania is the plum. During the five years 1909–1913 the area under plum trees averaged 180,000 acres annually, as compared with 193,000 and 173,000 acres, respectively, in 1914 and 1915. The production of plums averaged 308,000,000 pounds annually, valued at \$2,505,000, as compared with 365,000,000 pounds in 1914, valued at \$3,305,000.

Vineyards.—The area devoted to the cultivation of the vine in Roumania during the five years 1909–1913 averaged 216,000 acres annually. American vines resistant to attacks of the phylloxera are rapidly replacing the native vines. From an area of 45,000 acres in 1909, or 21 per cent of the total area in vineyards, the area under American vines increased to 97,000 acres in 1913 and to 113,000 acres, or 55 per cent of the total area, in 1914. The production of wine averaged 37,436,000 gallons annually, valued at \$10,493,000, as compared with 17,453,000 gallons in 1914. Of the total production of wine in 1914, 74 per cent was derived from grapes grown on American vines.

IMPORTS.

Imports of fruits into Roumania during the four years 1909–1912 averaged 48,052,000 pounds annually, valued at \$1,183,000. Prepared or preserved fruits contributed 40.7 per cent of this value, fresh fruits 36.6 per cent, and dried fruits 22.7 per cent. In addition, imports of olive oil averaged 7,333,000 pounds annually, valued at \$614,000, and of wines 2,381,000 pounds annually, valued at \$360,000.

The principal fruits imported during the four years 1909–1912 and their average annual value were olives \$446,000, oranges \$157,000, raisins \$137,000, lemons \$115,000, figs \$61,000, table grapes \$50,000, mandarins \$30,000, dried apricots \$23,000, and dates \$22,000. The citrus fruits were obtained chiefly from Italy and the figs from Greece. The bulk of the remaining fruits, as well as olive oil, was obtained from Turkey. France supplied the larger part of the wine.

EXPORTS.

Exports of fruits from Roumania during the four years 1909-1912 averaged 1,665,000 pounds annually, valued at \$37,000. The principal fruits exported and their average annual value were prunes \$36,000, plums \$15,000, and pears \$6,500.

SERBIA.

Area and production.—Plum growing is the principal fruit industry of Serbia. During the three years 1904-1906 the average area under plum trees was 367,000 acres and the average annual production of plums 987,000,000 pounds, valued at \$4,358,000.

The average area under vines was 83,000 acres and the average annual production of wine 11,776,000 gallons, valued at \$5,138,000.

Of fruits other than plums and grapes, such as apples, pears, etc., the production averaged 229,000,000 pounds annually, valued at \$2,940,000.

Exports.—There was exported from Serbia in 1909 a total of 63,000,000 pounds of fruit, valued at \$899,000, as compared with 106,000,000 pounds, valued at \$2,920,000, in the year following. Of the total value of the fruit exported during these two years 64 per cent was derived from prunes, 16.7 per cent from plum marmalade, 7.5 per cent from apples, 5.8 per cent from pears, and 5.3 per cent from plums. Most of these fruits were shipped to Austria-Hungary. In addition, wine to the value of \$25,000 was exported from Serbia in 1910.

Imports.—Imports of fruits into Serbia in 1909 amounted to 19,017,000 pounds, valued at \$258,000, as compared with 28,098,000 pounds, valued at \$518,000, in 1910. The principal fruits imported into Serbia in 1910 and their value were grapes \$470,000, citrus fruits \$23,000, and figs and dates \$11,000. In addition, imports of wine and olive oil in 1910 were valued at \$82,000 and \$48,000, respectively.

TURKEY.

Production.—The growing of fruit for export, especially in Asiatic Turkey, has long been an important industry of the Turkish Empire. Raisins, figs, oranges, dates, and olives are the chief fruits cultivated.

Exports.—Exports of fruits from Turkey during the fiscal year beginning March 4, 1910, amounted to 456,084,000 pounds, valued at \$14,315,000, and in 1911 to 518,290,000 pounds, valued at \$17,664,000. Of the total value of all fruits exported in these two years dried fruits contributed 79 per cent, fresh fruits 17.4 per cent, and prepared or preserved fruits 3.6 per cent. The principal fruits exported in 1911 were raisins 89,728,000 pounds, valued at \$8,423,000; figs 62,422,000 pounds, valued at \$2,676,000; citrus fruits 145,353,000 pounds, valued at \$2,265,000; dates 153,291,000 pounds, valued at \$2,256,000;

olives 24,972,000 pounds, valued at \$1,074,000; and dried apricots 1,049,000 pounds, valued at \$86,000. There were also exported olive oil and wine to the value of \$2,356,000 and \$449,000, respectively.

The United Kingdom was the best customer for citrus fruits, figs, and raisins; Egypt for dried apricots; India and the United Kingdom for dates; Roumania for olives and olive oil; and Germany and France for wines.

Imports.—Imports of fruits into Turkey during the fiscal year beginning March 14, 1910, amounted to 37,248,000 pounds, valued at \$868,000, as compared with 33,079,000 pounds in 1911, valued at \$910,000. Of the total value of all fruits imported in these two years 51.8 per cent was contributed by dried fruits, 41.2 per cent by fresh fruits, and 7 per cent by prepared or preserved fruits. The principal fruits imported in 1911 and their value were citrus fruits \$273,000; olives, \$74,000; raisins, \$62,000; dates, \$37,000; and figs, \$16,000. There were also imported in this year wines to the value of \$355,000 and olive oil to the value of \$186,000.

SPAIN AND PORTUGAL.

SPAIN.

PRODUCTION.

Statistics of the production of grapes and olives are published annually by the Spanish Government. With regard to other fruits, however, the latest official figures relate to the year 1910.

TABLE 11.—*Production of fruit in Spain in 1910.*

Fruit.	Acres.	Tons of 2,000 pounds.	Fruit.	Acres.	Tons of 2,000 pounds.
Apples.....	52,066	169,029	Oranges.....	117,457	876,047
Apricots.....	8,466	16,795	Peaches.....	13,017	21,183
Cherries, sour.....	3,598	7,025	Pears.....	26,272	70,553
Cherries, sweet.....	5,770	11,450	Plums.....	12,387	29,867
Figs.....	141,198	121,919	Pomegranates.....	8,201	23,036
Grapes.....	3,194,855	2,283,357	Quinces.....	3,833	8,657
Lemons.....	6,363	69,775	All others.....	8,508	26,530
Olives.....	3,499,237	688,517			

The principal fruits grown in Spain are the following:

Grapes.—The area of the vineyards of Spain for the five years 1909–1913 averaged 3,158,000 acres annually, the production of grapes 2,920,000 tons, and the production of must 393,000,000 gallons. It is estimated that 90.8 per cent of the crops of these years was sent to wineries, 2.6 per cent dried for raisins, and 1.9 per cent exported for table use.

The growing of table grapes for export is virtually confined to the Province of Almeria, where an area of 12,000 acres, producing an average of 57,000 tons annually, is devoted to this industry. The

Almeria grape is packed in ground cork and shipped in small barrels containing about 47 pounds of fruit. It is noted for its shipping qualities.

Statistics of grapes for a series of years are shown in the following table:

TABLE 12.—*Production of grapes and must in Spain.*

Year.	Area.	Production of grapes.	Grapes pressed for wine.	Production of must.
	<i>Acres.</i>	<i>Tons of 2,000 pounds.</i>	<i>Tons of 2,000 pounds.</i>	<i>Gallons.</i>
1909.....	3,204,506	2,963,413	2,666,588	388,758,040
1910.....	3,194,855	2,283,357	2,049,481	298,074,450
1911.....	3,187,533	2,972,172	2,683,254	389,572,846
1912.....	3,112,573	3,125,592	2,878,660	434,957,226
1913.....	3,089,145	3,254,274	2,984,680	451,868,148
1914.....	3,066,820	3,086,451	2,854,105	427,108,471
1915.....	3,080,163	1,840,905	1,671,775	232,204,902

Olives.—During the five years 1909–1913 the area of the olive groves of Spain averaged 3,526,000 acres annually, the production of olives 1,341,000 tons, and the production of olive oil 242,000 tons. Of the total production of olives in the five years named, 95.7 per cent was pressed for oil. Light and heavy crops alternate as a rule. Although the cultivation of olives is general throughout Spain, more than one-half the crop is produced in the Provinces of Lerida, Jaen, Seville, and Cordoba. Seville is the center of the pickled-olive industry. Statistics of olives for the years 1909–1914 are shown in the following table:

TABLE 13.—*Production of olives and olive oil in Spain.*

Year.	Area.	Production of olives.	Olives used for making oil.	Production of olive oil.
	<i>Acres.</i>	<i>Tons of 2,000 pounds.</i>	<i>Tons of 2,000 pounds.</i>	<i>Tons of 2,000 pounds.</i>
1909.....	3,446,694	1,541,339	1,468,534	264,301
1910.....	3,499,237	688,517	667,002	119,609
1911.....	3,567,197	2,446,573	2,341,112	464,931
1912.....	3,577,123	391,681	383,170	69,446
1913.....	3,590,086	1,638,982	1,559,523	292,575
1914.....	3,618,841	1,302,291	1,259,280	229,019

Oranges.—The orange groves of Spain covered an area of 117,457 acres in 1910, when the production of oranges amounted to 876,000 tons, equivalent to 27,376,000 boxes, averaging 64 pounds of fruit to the box. Six Provinces reported 92.8 per cent of the area, namely, Valencia, 42.1 per cent; Castellon, 32.2 per cent; Tarragona, 6.9 per cent; Murcia, 5 per cent; Seville, 3.5 per cent; and Alicante, 3.1 per cent. Three-fourths of the area under orange trees is situated in the Valencia district, which comprises a narrow strip of land extending

for 150 miles along the Mediterranean coast line of the Provinces of Valencia and Castellon. The average yearly production of oranges in this district is estimated at from 400,000 to 450,000 tons. Nearly all of these oranges are exported by sea to northern Europe. The Valencia is the only variety grown extensively in this district, though small quantities of other varieties are also cultivated.

Seville is noted for its bitter oranges. Both sweet and bitter oranges are grown in Seville, but the bitter is the more important commercially. The 1914 crop of this district was estimated at 25,000,000 sweet oranges and 66,000,000 bitter, as compared with 30,000,000 sweet and 70,000,000 bitter in 1913. Most of the bitter oranges are shipped to the United Kingdom, where they are prized for their superior qualities in marmalade manufacture.

Lemons.—The area devoted to the cultivation of lemons in 1910 amounted to 6,363 acres, which gave a yield of 69,775 tons, or the equivalent of 1,861,000 boxes averaging 75 pounds of fruit. Four Provinces reported 85 per cent of the total area under lemon trees and 94 per cent of the lemon production. They were Murcia, Valencia, Tarragona, and Malaga.

Apples.—The greater part of the apple crop of 1910 was produced in the northern Provinces of Spain. Taking as a basis 48 pounds of apples to the bushel, the crop of 1910 was equivalent to 7,043,000 bushels.

Figs.—Of a total production of 122,000 tons of figs, 38.5 per cent was produced in the Balearic Islands and 11.6 per cent in the Province of Murcia.

EXPORTS.

Exports of fruits from Spain during the five years 1909–1913 averaged 1,401,816,000 pounds annually, valued at \$21,353,000. Fresh fruits contributed 80.4 per cent of this value, dried fruits 13.5 per cent, and prepared or preserved fruits 6.1 per cent. In 1914 there were exported 1,261 million pounds of fruits, valued at \$18,879,000. In addition to fruits there was exported during the five years 1909–1913 an annual average of 82,056,000 gallons of wine, valued at \$19,932,000, and 86,454,000 pounds of olive oil, valued at \$7,569,000. Wines were shipped principally to France and olive oil to Italy and Argentina.

The chief fruits exported from Spain during the five years named were oranges, table grapes, raisins, and olives.

Oranges.—Spain ranks first in the exportation of oranges. More than one-half of the total value of all fruits exported from Spain is derived from this product alone. During the five years 1909–1913 exports of oranges averaged 1,120 million pounds annually, valued at \$11,762,000, the quantities exported ranging between 974 million pounds in 1911 and 1,255 million pounds in 1913. On the basis of 64 pounds of fruit to a box the average yearly exportation of oranges was equivalent to 17,494,000 boxes. Shipments of oranges to the United Kingdom averaged 46.5 per cent of the total quantity exported during the five years named, as compared with 21.2 per cent to France and 18.7 per cent to Germany. In 1914 there was exported a total of 1,054 million pounds of oranges, valued at \$11,068,000.

Grapes for table use.—Exports of table grapes averaged 97,819,000 pounds annually, valued at \$2,997,000, the quantity exported fluctuating between 82 million pounds in 1912 and 122 million pounds

in 1913. The principal customers for these grapes were the United Kingdom with 47 million pounds annually, United States 32 million pounds, and Germany 12 million pounds. Most of the grapes are shipped from the port of Almeria. In 1914 there was exported a total of 81,776,000 pounds, valued at \$2,506,000.

Raisins.—Exports of raisins averaged 52,851,000 pounds annually, valued at \$2,545,000, as compared with 34 million pounds in 1914, valued at \$1,615,000. More than half of the raisins exported went to the United Kingdom.

Olives.—Exports of green and pickled olives from Spain averaged 29,879,000 pounds annually, valued at \$1,962,000. More than three-fifths of these olives were shipped to the United States. The next largest customers were Argentina and Cuba.

Other fruits.—Of the other fruits exported the more important and their average annual value were pressed grapes \$492,000, preserved fruits \$431,000, fruit pulp \$291,000, dried figs \$268,000, lemons \$192,000, pomegranates \$102,000, apples \$32,000, and peaches \$23,000.

IMPORTS.

Imports of fruits into Spain, consisting wholly of dried fruits, averaged 6,237,000 pounds annually, valued at \$420,000, during the five years 1909–1913, as compared with 9,054,000 pounds, valued at \$603,000, in 1914. Figs and dates were the principal fruits imported. In addition, imports of wines, chiefly from France, averaged 76,000 gallons annually, valued at \$242,000.

PORTUGAL.

EXPORTS.

The value of exports of fruits from Portugal during the five years 1909–1913 averaged \$1,003,000 annually. Fresh fruits contributed 74.1 per cent of this value, prepared or preserved fruits 21.4 per cent, and dried fruits 4.5 per cent. In addition, exports of wines averaged 28,582,000 gallons annually, valued at \$12,604,000, and of olive oil 754,000 gallons annually, valued at \$681,000.

The principal fruits exported during the five years named and their average annual value were pineapples \$383,000, grapes \$238,000, figs \$196,000, apples \$99,000, olives \$40,000, and oranges \$4,000.

The United Kingdom was the chief customer for apples, grapes, oranges, pineapples, and port wine; Belgium for figs; and Brazil for olives, olive oil, and common red wine.

IMPORTS.

Imports of fruit into Portugal during the five years 1909–1913 averaged 466,000 pounds annually, valued at \$45,000. Spain supplied the greater part of these fruits.

UNITED KINGDOM.

AREA.

The area under fruits in the United Kingdom (excluding the Isle of Man and the Channel Islands) during the five years 1909–1913 averaged 321,000 acres annually, as compared with 314,000 acres in 1914. This average area includes 29,000 acres of small fruit grown in orchards. Ninety-three per cent of the fruit acreage was in England,

4.4 per cent in Ireland, and 2.6 per cent in Scotland. Apples, pears, cherries, and plums are the principal orchard fruits grown, and strawberries, raspberries, currants, and gooseberries the principal small fruits. Statistics of production are not collected. The five-year (1909-1913) average acreage under individual fruits was as follows: Apples 175,084, pears 10,153, cherries 11,842, plums 17,441, strawberries 26,804, raspberries 9,461, and currants and gooseberries 28,168.

IMPORTS.

The value of foreign and colonial fruits entering the ports of the United Kingdom during the five years 1909-1913 averaged \$69,827,000 annually, ranging steadily upward from \$64,000,000 in the first-named year to \$74,000,000 in the last named. Fresh fruits contributed 65.1 per cent of this value, dried fruits 26.2 per cent, and preserved fruits 8.7 per cent. In addition, the annual value of the two leading fruit products imported, wine and olive oil, averaged \$19,973,000 and \$2,926,000, respectively. The value comprises cost of the fruit plus insurance and freight to the place of landing, or, when consigned for sale, the latest sale value. The weight of the fresh fruit imported (excluding bananas, the weight of which is not given) averaged 1,368 million pounds annually, as compared with 313 million pounds of dried fruits and 113 million pounds of prepared or preserved fruits. The principal fruits imported during the five years named and their average annual quantity and value were oranges 5,662,000 hundredweight of 112 pounds each, valued at \$11,678,000; fresh apples 3,369,000 hundredweight, valued at \$10,869,000; bananas 6,713,000 bunches, valued at \$9,174,000; dried currants 1,247,000 hundredweight, valued at \$7,622,000; raisins 721,000 hundredweight, valued at \$6,055,000; canned or bottled fruits, including canned pineapples, 715,000 hundredweight, valued at \$4,787,000; grapes 613,000 hundredweight, valued at \$3,353,000; pears 598,000 hundredweight, valued at \$2,701,000; lemons, limes, and citrons 859,000 hundredweight, valued at \$2,228,000; fresh plums 386,000 hundredweight, valued at \$1,992,000; prunes and other dried plums 187,000 hundredweight, valued at \$1,724,000; canned pineapple (1913 only) 270,000 hundredweight, valued at \$1,578,000; dates 429,000 hundredweight, valued at \$1,466,000; preserved fruits other than canned or bottled 296,000 hundredweight, valued at \$1,322,000; and figs and fig cake 179,000 hundredweight, valued at \$1,155,000. Other important fruits imported and their average annual value were cherries \$793,000, currants \$668,000, apricots and peaches \$211,000, strawberries \$163,000, and gooseberries \$74,000.

Of the fruit products imported, the more important, next to wines and olive oil, and their average annual value, were lime and lemon juice, \$386,000; grape juice or must, \$53,000, and cider and perry, \$37,000.

Oranges and grapes were obtained chiefly from Spain; apples from Canada and the United States; bananas from Colombia, Costa Rica, and the Canary Islands; dried currants from Greece; dates, raisins, and figs from Asiatic Turkey; canned fruits and prunes from the United States; pears from Belgium and France; plums, cherries, apricots, peaches, currants, strawberries, and wines from France; lemons from Italy; and edible olive oil from Italy, France, and Spain.

EXPORTS.

Exports of domestic fruits from the United Kingdom are limited to prepared or preserved fruits. During the five years 1909–1913, exports of this class of products averaged \$1,996,000 annually. Marmalades, jams, and fruit jellies comprised the bulk of the fruit exported. Canada ranked first as a customer for these products, United States second, and British India third.

REEXPORTS.

Reexports of fruits from the United Kingdom during the five years 1909–1913 averaged \$4,615,000 annually. Fresh fruits contributed 66.7 per cent of this value, dried fruits 23.5 per cent, and prepared or preserved fruits 9.8 per cent. In addition, reexports of olive oil averaged \$390,000 annually, and of wines \$2,348,000.

The principal fruits reexported and their average annual value were bananas, \$1,005,000, apples \$689,000, grapes \$625,000, dates \$568,000, oranges \$495,000, raisins \$187,000, and dried currants \$132,000.

ASIA.

JAPAN.

PRODUCTION.

The principal fruit grown in Japan is the orange. During the five-year period, 1909–1913, the total number of orange trees in Japan averaged 20,310,000 annually, and the production of oranges 501,000,000 pounds.

TABLE 14.—*Number of fruit trees and production of fruit in Japan.*

Kind of fruit.	Five-year average, 1909–1913.		1914	
	Trees.	Production.	Trees.	Production.
	<i>Number.</i>	<i>Pounds.</i>	<i>Number.</i>	<i>Pounds.</i>
Apples.....	2,640,028	78,915,023	3,257,934	78,847,406
Cherries.....	104,370	1,792,000	157,563	2,560,102
Figs.....	253,140	6,104,187	325,637	7,107,431
Grapes.....	¹ 2,308,104	28,756,922	¹ 2,800,465	32,696,179
Loquats.....	1,065,122	20,009,002	1,205,103	20,967,088
Oranges:				
Mikan.....	13,007,348	320,386,159	15,806,932	330,128,889
Navel.....	1,026,630	11,522,538	1,495,100	17,160,658
Natsumikan.....	3,271,000	100,241,558	3,674,582	106,073,047
Other.....	3,004,621	69,213,960	3,361,692	68,141,831
Peaches.....	6,327,817	82,988,064	7,119,255	86,502,959
Pears.....	6,950,104	157,080,702	8,046,157	167,125,710
Persimmons:				
Green.....	} 9,750,240	{ 365,071,466	} 10,569,724	{ 321,690,762
Dried.....		{ 41,514,316		{ 30,650,701
Plums.....	4,598,537	² 2,468,887	4,489,256	² 2,231,930
Quinces.....	82,724	1,468,286	92,318	1,551,227

¹ Vines.² Bushels.

EXPORTS.

The chief fruits exported during the five years 1909–1913 were mandarins and apples. Shipments of mandarins averaged 24,729,000 pounds annually, valued at \$460,000, and those of apples 8,485,000 pounds, valued at \$243,000. Four-fifths of the apples and a large part of the mandarins were exported to Asiatic Russia.

IMPORTS.

Imports of fruits into Japan are not classified separately in trade statistics, but are included with nuts and vegetables. Wine is the principal fruit product imported. During the five years 1909-1913 there was imported an annual average of 454,000 gallons of wine, valued at \$267,000. Spain and France supplied three-fourths of the wine.

PERSIA.

PRODUCTION.

The growing of fruit for export, especially in its dried form, is an important industry. Among the fruits cultivated are quinces, peaches, apricots, plums, grapes, dates, and oranges.

EXPORTS.

During the five years 1909-1913 exports of fruits from Persia averaged 121,000,000 pounds annually, valued at \$7,025,000. Fresh and dried fruits contributed 99.9 per cent of this value. The most important fruit exported is the raisin. During the five years 1909-1913 there was exported an annual average of 70,252,000 pounds of raisins, valued at \$4,727,000, the quantity exported ranging between 56,000,000 pounds in 1912 and 82,000,000 pounds in 1910. Russia took nearly all of these raisins. Of the other fruits exported during this period the more important items were fresh and dried fruits, not specified, \$1,613,000; dates \$616,000; citrus fruits \$62,000; and preserved fruits \$7,000.

AFRICA.

ALGERIA.

PRODUCTION.

Statistics of grapes and olives are more complete than of the other fruits in Algeria. The area under vines during the five years 1909-1913 averaged 391,000 acres annually, and the production of wine 212,000,000 gallons. Red wine comprised 88.1 per cent of the total production, and white wine 11.9 per cent. The number of olive trees averaged 13,081,000 annually during this period, the production of olives 599,000,000 pounds, and the production of olive oil 8,421,000 gallons. Data concerning other fruits cultivated are given in the following table:

TABLE 15.—*Number of fruit trees in Algeria.*

Kind of fruit tree or plant.	4-year average, 1909-1912.		1912.	
	Total number.	Number bearing.	Total number.	Number bearing.
Banana.....	52,286	34,624	42,880	31,303
Cherry.....	87,328	73,147	100,787	82,627
Citrus:				
Lemon and cedrate.....	175,322	150,648	164,721	141,695
Mandarin.....	516,406	423,674	539,373	373,264
Orange.....	852,166	720,822	889,832	783,341
Date.....	3,863,550	2,657,756	4,131,753	3,084,869
Fig.....	5,832,220	4,880,036	6,064,105	5,263,398
Medlar.....	68,278	54,812	78,089	58,962
Pomegranate.....	637,207	550,818	652,379	570,367

EXPORTS.

The principal fruits exported from Algeria during the five years 1909-1913 and their average annual value, were lemons and oranges \$172,000, mandarins, etc., \$449,000, grapes \$578,000, dates \$613,000, and figs \$646,000. In addition, shipments of common wines in casks during this period averaged 185,422,000 gallons annually, valued at \$33,278,000, and of olive oil 11,918,000 pounds, valued at \$1,547,000. Practically all of the fruits and olive oil and 98.5 per cent of the wine were shipped to France.

IMPORTS.

Preserved fruits, apples, pears, and raisins were the chief fruits imported into Algeria, and wine and olive oil the chief fruit products.

BRITISH SOUTH AFRICA.

Exports.—The value of fresh fruits exported from the South African Union in 1914 was \$453,000. The chief fruits exported and their value were pears \$121,000, grapes \$100,000, oranges \$87,000, plums \$49,000, peaches \$44,000, pineapples \$12,000, nectarines \$6,550, apples \$6,229, bananas \$3,815, and apricots \$1,475.

Imports.—The principal fruits imported in 1914 were dried currants and raisins \$105,000, bottled and canned fruits \$57,000, dates \$46,000, dried fruits not specified \$37,000, and figs \$13,000.

TUNIS.

A wide variety of fruits is cultivated in Tunis, including apples, peaches, apricots, nectarines, pears, plums, cherries, grapes, lemons, mandarins, oranges, dates, olives, and figs. The most important are the olive and the wine grape. In 1912 there were exported 32,793,000 pounds of olive oil, valued at \$3,966,000, and 5,684,000 gallons of wine, valued at \$1,101,000.

OCEANIA.**AUSTRALIA.****PRODUCTION.**

The total area of the vineyards of Australia increased from 59,450 acres in 1908-09 to 62,388 in 1912-13. The vine is cultivated in all the States of the Commonwealth except Tasmania, where the climatic conditions are unfavorable. During the five seasons 1908-09 to 1912-13 there was produced an annual average of 5,413,000 gallons of wine, 13,480 tons of table grapes, 13,506,000 pounds of raisins, and 8,076,000 pounds of dried currants. South Australia led in the production of wine, New South Wales in the production of table grapes, and Victoria in the production of raisins.

The total area of the orchards and fruit gardens of Australia increased from 171,558 acres in 1908-09 to 205,174 acres in 1912-13. There were increased areas in Tasmania and Western Australia, mainly due to extensive plantings of apple trees with a view to the possibilities of the London market for fresh fruit. The production of fruits in the season 1912-13 was as follows: Apples 4,693,000 bushels, valued at \$5,289,000; nectarines and peaches 924,000 bushels, valued at \$1,296,000; apricots 429,000 bushels; valued at \$748,000; pears 1,100,000 bushels, valued at \$803,000; bananas

1,139,000 bunches, valued at \$693,000; pineapples 684,000 dozen, valued at \$333,000; oranges 1,402,000 bushels, valued at \$1,953,000; and lemons 375,000 bushels, valued at \$430,000.

EXPORTS.

During the five years 1909-1913 the value of the fruit exported from Australia averaged \$2,157,000 annually. Fresh fruits contributed 83.4 per cent of this value, preserved fruits 11.1 per cent, and dried fruits 5.5 per cent. In addition, there were exported 1,078,000 gallons of domestic wines annually, valued at \$586,000.

Apples comprised 68.8 per cent of the total value of the fruits exported during the five years named. Exports of apples averaged 47,317,000 pounds annually, valued at \$1,483,000. Of the other fruits exported, the more important and their average annual value were citrus fruits \$129,000, preserved fruits \$123,000, raisins \$66,000, dried currants \$19,000, and pineapples \$16,000. Apples, raisins, and wines were shipped principally to the United Kingdom, preserved fruits to the South African Union, and the other fruits to New Zealand.

IMPORTS.

The value of the fruits imported into Australia during the five years 1909-1913 averaged \$1,758,000 annually. Fresh fruits contributed 55.8 per cent of this value, dried fruits 26.2 per cent, and prepared or preserved fruits 18 per cent. In addition, there was imported annually wine, chiefly of French origin, to the value of \$749,000. The principal fruits imported and their average annual value were bananas \$683,000, dates \$201,000, apples \$152,000, citrus fruits \$141,000, jams and jellies \$49,000, and raisins \$36,000. The bananas were obtained chiefly from the Fiji Islands, dates from Arabia, apples from the United States and Canada, and citrus fruits from Italy.

NEW ZEALAND.

The area planted in commercial orchards in 1915 was 45,000 acres, as compared with 29,000 acres in 1908. Most of the fruit produced is consumed at home. During each of the past two seasons, however, between 60,000 and 70,000 cases of apples have been shipped to South America.

HAWAII.

The most important fruit cultivated is the pineapple, especially since 1900, when the pineapple canning industry was begun in Hawaii. From 1,200 cases in 1900 the output of canned pineapples increased to 2,500,000 cases in 1915. The value of the pineapples exported during the fiscal year ending June 30, 1915, was \$6,319,000, as compared with \$5,062,000 in 1914. Most of this product is shipped to the United States. The banana is also an important item of export. During the five years 1911-1915 shipments of bananas from Hawaii to the United States averaged 208,000 bunches a year, valued at \$129,000. Shipments of fruits to Hawaii from the United States during the same period averaged \$259,000 a year, the chief items being oranges, apples, and canned fruits.